

University College of North Wales,
Bangor

SOME ASPECTS OF MODERN UNIVERSITY EDUCATION

AN ADDRESS

DELIVERED AT THE
CLOSING CEREMONY OF THE SESSION 1902-3
JUNE 19th, 1903

BY

SIR RICHARD JEBB, D.C.L., LL.D., M.P.,
REGIUS PROFESSOR OF GREEK IN THE UNIVERSITY OF CAMBRIDGE

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*Address given at University College, Bangor,
on Friday, June 19.*

SOME ASPECTS OF MODERN UNIVERSITY EDUCATION.

The nineteenth century will always be memorable in the history of English education. Our Elementary system was for the first time organised under the control of the State; Secondary training, though not organised, was immensely improved in several kinds of schools; the education of women was lifted to a wholly new level; technical education was begun under the auspices of the County Councils; and, finally, a most remarkable development took place in the resources for teaching of a University type. This last change, indeed, is second in importance to none of those momentous changes which marked the Victorian age. Look back only a little more than seventy years, and consider what the situation was on the eve of the first Reform Bill. Oxford and Cambridge were then the only Universities south of the Tweed; and their position was far from satisfactory. The range of their studies was too narrow; they had not been keeping pace with the advancement of knowledge. Their social operation also was much too limited; it was practically confined to the wealthier classes, and to the members of one communion. They were out of touch with the nation as a whole; and the discontent with which they were regarded found expression in many different quarters. In the second half of the century, however, all this was changed. By

successive reforms the quality of their teaching was improved and its range was greatly widened; religious tests were abolished; the doors of the Universities were opened to large classes of the community against which they had formerly been closed. Oxford and Cambridge came to be in fact, and no longer in name only, national Universities. But meanwhile a rapidly growing demand for higher education had gradually created a series of new institutions of various kinds. The earliest of these sprang from a sense of the fact that the benefits of the ancient Universities were restricted to the few. The metropolis was the first seat of such new foundations. University College, London, was established in 1828, and King's College in the following year. London University, as an Examining Board, received its first charter in 1836. The needs of the North of England also claimed attention. In 1833 a charter was granted to the University of Durham. Owens College, Manchester, arose in 1851. The period from 1870 to 1885 was marked by signal activity. A series of University Colleges then came into existence, including those of Leeds, Liverpool, Birmingham, Bristol, Aberystwyth, Cardiff, and Bangor. Two such Colleges, those of Nottingham and Sheffield, grew out of the University Extension movement, which has since produced also Colleges of a special type at Reading, Exeter, and Colchester. The next great step was the formation of the Federal Universities. The Colleges at Manchester, Liverpool, and Leeds were federated in the Victoria University, to which a charter was given in 1880. Your own University of Wales received its charter in 1893. Since then some events have occurred which are of great importance for the future of our University education. The University of Birmingham has been founded. The University of London has been reconstituted as a teaching body. The federal Victoria University is to be dissolved. Liverpool has received a charter for a University of its own. There will be a University of Manchester; and Leeds is to be the seat of another. Thus in England and Wales we are to have at least nine Universities. And it has recently been announced that there is a project for establishing a University of Sheffield.

With this growing multiplication of centres for training of the University type, it is clear that we have entered on a new period in the history of our higher education. New problems are presenting themselves, and old questions are recurring in new forms. The great fact which determines the character of the whole movement is the extraordinary development of local interest and energy in this direction. One of the first questions that occur at the present time is this:—What are the advantages or drawbacks of a Federal University as compared with a City University, such as that of Birmingham? One advantage of the federal system is that which it bestows on Colleges which might not be strong enough to stand alone as degree-giving bodies. By federation, by common action, each of them gains in breadth; the studies of each, leading up to degrees conferred by the University, gain in importance and become animated by a larger spirit. There is a further consideration, which applies with special force to an area such as that of the Principality; namely, that a University which represents Wales enjoys the solid support of Welsh national sentiment. This is a source of strength which can hardly be overrated. As to the drawbacks of the federal system, one of them is that the federal control necessarily imposes certain limits on the freedom of teaching in the constituent Colleges, especially, perhaps, on the Arts side. I am not aware that in Wales you have felt that much; I believe that the University of Wales has been very successful in combining a uniformly high standard with a reasonable freedom for the Colleges in regard to their schemes of study. But the College at Liverpool, it is understood, felt somewhat trammelled by the federal system, and this was one of the reasons which prompted the desire for separation. Then in a federal University there is always the geographical question. In your own case it has been felt, I believe, as a real inconvenience that the meetings of Joint Boards involve long and frequent journeys, making considerable demand on the time of some Professors. That difficulty is inherent in the system; I do not know whether, or how far, it could be mitigated by limiting the number of teachers affected by it. Turn now to the City University; has it any

distinctive recommendation, as compared with the Federal? Its chief advantage is, I suppose, the concentration of local patriotism. A citizen of Liverpool, for instance, will be apt to care more for a University of that city than he would care for a Liverpool College in a University which included Manchester and Leeds. This may be one of the reasons why a University of Birmingham was thought more expedient than a University of the Midlands. The local patriotism of our great provincial cities has in these days a force and an intensity which can hardly be realised except by those who have lived in such a city. I know something of it from long experience at Glasgow. It is a force rooted in British character, in our institutions, our freedom, and our habits of local self-government. That each great city should have its own University, may or may not be educationally good; but the rivalry between such cities is a very powerful factor in the case. If Birmingham is to have a University of its own, that is, for Liverpool, a further reason why it should have one too: and if Leeds is to have one, Sheffield will hardly be content that its College should be affiliated, in a subordinate position, to its neighbour's institution. The situation is characteristically English. The English people, as a whole, has till lately cared comparatively little about education; education, in all its grades, has been advanced mainly by voluntary agencies, or by individual enterprise; it has not been, as in Germany, organised from top to bottom by the State. And a very good thing too, many will say. Yes, good in certain respects; but it is a history which makes the situation very complex at a moment like the present, when the country is waking up to the fact that its place in world-competitions is jeopardised by its backwardness in education. The dissolution of the federal Victoria University, whether desirable or not, was inevitable from the moment that one great city had decided to apply for a separate charter; for, in such a matter, the will of a great city is practically irresistible. In referring to that event, it is impossible not to ask oneself whether it is fraught with any omen for the future of the University of Wales. I merely venture to utter aloud some thoughts that occur to me, as a spectator genuinely interested

in the fortunes of this University, of which the position is in some respects unique. One of your three Colleges is seated in a great commercial town. Suppose, for the sake of argument merely—I have no reason whatever to believe that the thing is probable—suppose that this great town should some day decide to have a University of its own. Then, I presume, one of two things would happen: Bangor and Aberystwyth would go on in federal union; or else Bangor would become the University of North Wales, and Aberystwyth would be left in a position analogous to that in which Leeds found itself when the dissolution was decreed. In view of such possible contingencies, one question before all others would seem to require an answer. Are the drawbacks to the federal system outweighed by the fact that the existing University stands for all Wales, and has the undivided support of Welsh sentiment behind it? An onlooker who thinks as I do would reply unhesitatingly, Yes: the advantage outweighs the drawbacks. To represent Wales is not merely to represent a geographical area and a distinct nationality: it is to represent also a well-marked type of national genius, characterised by certain intellectual bents, by certain literary aptitudes, by certain gifts of imagination and sympathy, specially manifested in the love of poetry and of music; a type of genius which is peculiarly susceptible to the influence of humane studies. A University which is the one academic expression of such a national genius holds a position of unique interest and of peculiar strength. It would be a great pity to break it up into two or three Universities, no one of which could have the same prestige. If there were but two Universities, one for North Wales and the other for South, the national sentiment would be divided, the strength which it gives would be impaired, and the unavoidable competition, however generous, might possibly be prejudicial to the interests of Welsh education at large. Perhaps I ought to apologise for this purely hypothetical reference to a situation which may never occur: but the prevailing current of events in England forcibly presses such thoughts on the mind; and a loyal well-wisher of the University may, I hope, be excused for saying these few words on the subject.

I revert to the new Universities in the great English towns, such as Manchester, Liverpool, and Birmingham. It is clear that they are destined to be Universities of what is called the modern type,—that is, predominantly scientific, and devoting special attention to the needs of practical life, professional, industrial, and commercial. But I may say at once that, in my opinion, there is no fear that these new modern Universities will not aim at a high standard of liberal education, whatever the *subjects* of it may be. Those who doubt this hardly realise (I believe) how much English thought at the great centres of population has been moving in the last few years. Only a few years ago, no doubt, there was a decided prejudice among many men of business and employers of labour against a University training, as they understood it. But the cruder form of utilitarianism in this matter has lately been dying out,—thanks largely to certain object-lessons furnished by Germany. One of the best-known of these, which I merely mention in passing, is the case of the aniline dyes. These colours were first discovered in England, and produced from English coal-tar. British dyers are still the largest consumers; but the processes for producing the colours have been so developed in the laboratories of Berlin that the industry has passed almost wholly from England to Germany. There are other like cases. Not long ago, at a meeting in London, I heard a speech by one of the highest authorities on technical education, Professor Ewing, who while holding the Chair of Applied Mechanics at Cambridge has so greatly developed the work of the Engineering Laboratory there, and who has lately been appointed Director of Naval Education. He urged that, in the interests of the technical industries themselves, the great need was for a training which should be more than technical,—which should be really scientific, giving a grasp of principles, educating the mind, stimulating the imagination, giving men some power of original initiative, and drawing out their inventive faculties. The leading men in the great cities, the merchants and the captains of industry, are probably becoming more and more alive to the fact that a mind which has been disciplined by a liberal training is more efficient for practical affairs and techni-

cal pursuits. We may expect to find such men supporting the effort to maintain a high standard in the new local Universities. To do so is indeed the only way to secure an adequate return for the very large sums which will be spent on equipment. The Council of Birmingham University proposes to spend a quarter of a million on buildings for certain technical branches of study, chiefly Engineering, Mining, and Metallurgy; and the fittings will cost large additional sums. That is a special development on a scale with which the older Universities cannot compete; and those who provide these funds will doubtless take care that the scientific training is the best that can be given. But in all our Universities, old and new, there is now a disposition to enlarge the range of study by including subjects which have some definite bearing on practical life, if, and so far as, they can be made instruments of a really liberal training. I may take two examples from the English University which I know best. At Cambridge it has just been decided to establish a school of honours in Economics. Before this was done, it was carefully discussed whether the subject was, or was not, large enough and educative enough to have such a school all to itself. I will venture to read part of the answer to that question given by one of the foremost advocates of the proposal. "Economics," said Professor Foxwell, "is intimately related to Ethics, Politics, Law, History, and even to Philosophy....Economics, when adequately treated, must include a reference to almost all the aspects of the citizen's life....With this width of range, too, it combines more than the usual variety of mental disciplines. Modern economic analysis, which has to deal with very complicated relations of cause and effect, requires a considerable grasp of exact methods....The observation, the judgment, the imagination, and the sympathies are all strengthened and trained by the various forms of economic inquiry; and from the educational point of view, at least, the study cannot fairly be called narrow." There, then, is a subject well-suited for study at the great centres of commerce and industry. I will take one other example from a different field. Honours at Cambridge will henceforth be obtainable by three years' study of the Chinese language, coupled with some knowledge of the

general history of the Far East. That, again, is an instance in which a legitimate subject of the highest study has also a practical bearing, in view of the international situation with regard to the trade of China. A thorough study of the Modern Languages of Europe is another subject which ought to flourish in the new City Universities. We may well augur for them a prosperous and most useful career. There are, however, two dangers to which it seems possible that they may be exposed. One is this: that, where the course for a University degree combines some branches of science with certain technical studies, the pressure of local demands may be exerted in favour of laying the chief stress on the technical attainments, and relaxing the requirements in regard to science. But it is reasonable to suppose that if in such a case the University authorities stand firm, they will be supported by the best local opinion. The Birmingham school of brewing seems to be a good example of the manner in which an academic course of this composite nature, partly scientific and partly technical, can be planned. The student is to spend two years on Physics, Chemistry, Biology and kindred subjects before he goes on to his two years of technical work in the brewing department. He is to study the testing of material, and all the processes involved, from a strictly scientific point of view. It is not likely that, in such a school, the scientific training, which is its very essence, would ever be unduly subordinated to the technical. There may be other instances in which such a danger would be greater: but, if so, we may hope that it will be avoided. The other danger of which I was thinking is that the scientific side of education in the new City Universities may sometimes too decidedly overpower the literary side. The experience of University Extension has shown that it is not always easy to preserve a just balance. The cause of this is not so much any want of literary interest among the abler students, but rather the pressure of time and practical needs. All the newer Universities have, or will have, first-rate teachers of literary subjects. There will be no lack of zeal, as a rule, among the students,—of that we may be sure; but it is to be feared that the main current of things will be rather adverse.

Yet it is of vital moment for all our higher education that the literary studies should hold their own.

Hitherto I have been referring to the Universities in cities of the first rank, such as Manchester, Liverpool and Birmingham. But an essentially different question arises when we come to towns which, though very large,—with populations of 200,000 or more,—are not in the same class with those just mentioned. If things go on as they are going at present, more than one such town will soon insist on having a University of its own. It will be a town which has a University College, strong, probably, in certain scientific and technical subjects, but weak, possibly, in some other subjects which nevertheless are indispensable for a University. The local wealth may be relied upon to support the highest study of any subjects which bear on the local industries, but will be comparatively apathetic towards others which the local man regards as ornamental. What is the State to do in such a case? Is it to grant the charter for a University, and hope for the best? Or is it to refuse, at the risk of damping local generosity towards studies which are valuable in themselves? It is a case of this nature which justifies some real anxiety as to the new tendency towards multiplying Universities. Now there is at least one consideration which may, I think, be suggested as helping to indicate a line between the cases in which a charter should, and should not, be granted. It would be generally allowed that a Faculty of Arts is one essential element of a University. Would it not be fair and wise to say that, before a charter is given for a new University, evidence should be forthcoming to show that such a University could provide a reasonably strong Faculty of Arts, in addition to its provision for the teaching of scientific and technical subjects? If this condition were not satisfied, the new degree-giving institution would be in fact only a College of Science, or a Technical College, and not in any proper sense a University. In such cases, the true solution would be found, I believe, by taking a hint from Germany. In Germany, as we know, the results of the highest education are systematically brought to bear on all the greater industries of the country. But this highest education is not

given only in completely equipped Universities, which confer degrees. It is largely given in the institutions known as Technical High Schools, to which we have nothing properly corresponding. In these Technical High Schools teaching of a University type is given by Professors of University rank in such subjects as Architecture, various branches of Engineering, Chemistry, and General Technical Science. There are now, I think, some ten or eleven of these institutions in Germany. At the great Technical High School of Berlin every new invention of any importance is promptly made the subject of practical study. There is more than one, perhaps, of our large towns of the second rank which would be an admirable seat for a Technical High School of this elevated order; whereas the same town, if it insisted on having a University, might find it an arduous and uncongenial task to equip a Faculty of Arts. The multiplication of Universities need not, in itself, cause uneasiness, provided that each new University is thoroughly well equipped, is a true University, and is really needed for the service of an adequately large population. If these conditions are fulfilled, there is an evident gain in additions to the number of centres from which the highest education is vigorously and efficiently propagated. The real disaster would be if we came to have one or more distinctly weak Universities,—institutions which could perform only some small part or parts of the function which that name implies. The mischief would be that such a body, having the power to give degrees, would tend to depreciate the value of that guarantee. This would be one of the gravest educational evils that could befall the country; it is one from which we have hitherto been exempt.

Will you permit me now to say a very few words on another matter which is suggested by the new developments,—namely the influence of students upon each other, considered as an element in University education? In the case of Oxford and Cambridge, this is a distinctive feature,—perhaps one might almost say, the capital distinction. Residence for three or four years amidst the influences of the University and the Colleges leaves an impress on the mind and character which is never effaced. There are many men who, in looking back, would

say that no other part of their education had gone deeper than this; and they could say so without any disparagement of their debt to wise guides and eminent teachers, without insensibility to the formative power of their *Alma Mater*, without ingratitude for the various lessons which she had inculcated. Of course, the value of these youthful associations must depend in some measure on a man's choice of companions and on the qualities of the set in which he lives at the University. But to those who are fortunate in such respects the benefits are altogether inestimable: they cannot be analysed or measured. In a retrospect of those days, many a man will reflect with thankfulness on all else that was done for him there, but the inmost places of his memory, its *sedes secretae piorum*, will be peopled by recollections of hours passed in that intimate society of contemporaries, in walks and talks lit up by an interchange of thought and feeling, by confidences, by discussions, by the avowal of dawning aspirations, by the asking and giving of counsel such as are possible only in a concurrence of five conditions which can never meet again,—namely, youth,—intellectual interest in its first freshness,—close ties of friendship,—leisure,—and such a *genius loci* as haunts those ancient homes of study and of peace. Everyone who appreciates the immense value of this element at the older Universities must be anxious for its presence in the newer seats of learning. You have that element, I doubt not, at Bangor. Your College shares with at least one of its sisters the twofold advantage of seclusion from turmoil and of surroundings at once beautiful and invigorating. All this is propitious to the social side of academic life. In the new Universities of the great cities the intercourse of students will be attended by greater difficulties, because many or most of them will have less leisure, and their residences will be spread over a wide area. Clubs, similar to the Unions at Oxford and Cambridge, will doubtless be created where they do not already exist. The value of such students' clubs in great cities consists very much in the increase of opportunities for friendship. We may be sure that the administrators of the

new Universities will further such objects, and will be fully alive to their educational significance.

The new local authorities for education will have to see that, so far as possible, the several grades of training shall be continuous, and that, for promising pupils, there shall be access from the lower to the higher. It was the good fortune of Wales that her system of Secondary schools had been organised, under the Intermediate Education Act of 1889, before her University entered upon its active career. That was an initial advantage for the University. In England the present situation is somewhat different. Secondary education has not yet been fully organised; to effect that is the duty of the new authorities: and at the same time new seats of University education are coming into existence, with which the Secondary schools of each area, or many of them, will have to be brought into touch by the action of those same local authorities. Thus the work which lies before the Education Committees, especially in the great cities, is very large and complex. At such a time it is well to know as clearly as may be what we understand by "University Education." Does it mean merely the highest grade of teaching,—higher, that is, than such as is given by the most advanced Secondary schools of the country? Or does the phrase connote certain qualities of the education, over and above the fact that it is of the highest grade? The word *Universitas*, as you are aware, was a general term for a corporation or guild: then it was specially applied to a body of students, voluntarily associated in the pursuit of knowledge, who, by becoming a corporation, acquired certain immunities and privileges which, in medieval times, were advantageous or necessary for their security. Such a *Universitas* of students has always had two features; first, that several different branches of higher study have been represented in it; secondly, that the members have received oral instruction from appointed teachers. From these two features the distinctive character of University education has been developed. It matters not where a University is seated, or in what subjects its special strength may reside; if it is adequately equipped and organ-

ised,—if it is doing the proper work of a University,—it will tend to produce certain effects: I say, “will tend,” because, like other human institutions, Universities have their proportion of failures. What are those effects? Well, it is not difficult to indicate some, at least, of them. University teaching aims at a general discipline of the mind, besides giving a grasp of at least one special branch of knowledge. Hence it tends to instil an intelligent respect for all studies; it helps students of science, for instance, and students of letters to understand each others’ aims. The spirit of University teaching is tolerant and sympathetic: the specialist acquires some sense of the manifold relations in which his own subject stands to others; he is led to perceive the largeness of knowledge and of life. Again, the University is equalising: external advantages confer no privilege: the absence of them is no reproach. It is also chastening; for it exacts from the student that he shall think out things for himself: the true teacher is no “crammer;” he gives materials, opportunities, and impulse. This impulse is given, not as a book may give it, but by personal contact, by the living voice, through which facts and thoughts are presented with a new force. The best University teaching is not in bondage to the letter, but is spiritual and suggestive: it tends to nourish and sustain ideals. Let the dwellers and workers in great cities, especially, remember this: in all studies the University seeks to impart some glimpse of the ideal: and, as has well been said, “the vision of the ideal guards monotony of work from becoming monotony of life.” Mr Gladstone expressed this truth in another way when, in a striking address at Oxford, he described the University as seeking “to secure that the man shall ever be greater than his work, and never bounded by it, but that his eye shall boldly run (in the language of Wordsworth)

‘Along the line of limitless desires.’”

If these are some of the things which a University seeks to do, then it may be said that there never was a time when true University education was more needful than it is in our day and in our country. High specialisation in every field of

knowledge and of work tends to limit the horizon of thorough study: on the other hand, the hurry of the age, the crowd of subjects brought under notice by the press, the social demand for acquaintance with the topics of the hour, encourage reading of a miscellaneous and very superficial kind. Both these tendencies are adverse to breadth and sobriety of judgment. Then it is a trait of the time to measure success by material standards, and to brush aside, as weak and unbusinesslike, any suspicion that an engrossing pursuit of such success may involve the loss of things better than the prize. So far as the true spirit of University education can make itself felt, it is a corrective of such tendencies.

The insistent demand, from large sections of the public, for immediate utility in our highest education can be met, more or less, by many subjects which have now been brought within the academic purview. There are, however, other subjects of which the utility is not in the same sense direct, but consists in their value as a discipline, intellectual and moral. Among these are the works of the ancient Greek genius, with all their claims on the student of thought, of political society, of literature, and of art; the Roman evolution of institutions and of law; the studies of modern history and philosophy. These can impart humanity and breadth, train the moral judgment, sharpen the critical faculty, refine the appreciation of literary form, educate a sense of measure, enrich the imagination, open that perspective of knowledge without which there is apt to be a narrowing of the mental vision, render all life more suggestive and more significant. No University is complete, no University fulfils the true idea of such an institution, which does not keep an honoured place for such studies as these. When it is said that there is no time for them now-a-days, the question arises,—what, even from a strictly practical point of view, is the best educational investment of time? As to the study of Greek, which figures so much in the foreground of the controversy, one remark may be made in passing. The experience of women who have been distinguished in that subject goes far to show that the study of Greek might be begun at a somewhat later age than has been usual in schools,

without risk of inferior results. And one other thing may be said, which applies to the school-study of the classics generally. Every effort should be made to awaken the pupil's literary interest from the outset, even at the cost of postponing the closer study of grammar. Many young people would quickly feel the charm and stimulating freshness of the great literature, who now are apt to lose heart in the vestibule of accidence and syntax.

But whatever may be done in this or other particulars, we must hope that nothing will be allowed to lower or to obscure in this country the true ideal of a University training. Let every due regard be paid to the requirements of active life at the present day. But let it also be remembered that there is a national need even more urgent than the preparation of special aptitudes. It is the need for a wider diffusion of such a liberal education as shall train the intelligence, give elasticity to the faculties of the mind, humanise the character, and form, not merely an expert, but an efficient man.

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